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By Electronic Mail and Telecopy

Mark J. Connolly
County of Santa Clara Planning Office
70 West Hedding St., 7th Floor, East Wing
San Jose, CA 95110

RE: Hanson Quarry Reclamation Plan -- File Number: 2250-13-66-07P-07EIR

Dear Mr. Connolly:

The Attorney General submits these comments on the Notice of Preparation of an environmental impact report ("EIR") for the Hanson Permanente Reclamation Plan Amendment ("the project"). Although the deadline for filing comments on the Notice of Preparation has passed, we request that you consider these comments in preparing the draft EIR.

The Hanson Quarry, located west of the City of Cupertino, consists of a limestone mine and cement plant, including a 250 foot cement kiln heated primarily with coal. The current Reclamation Plan for the Hanson Quarry was approved in 1985 and will expire in March 2010. The proposed project would expand the 330-acre area covered by the 1985 Reclamation Plan, to authorize 917 acres of mining and reclamation activity and extend operations for 25 years, until 2035. The project would authorize about 30 acres of new mining area, plus additional buffer areas, and reclamation of already disturbed areas that extend beyond the areas covered in the 1985 Plan.

The Notice of Preparation identifies the primary environmental issues that the EIR will address, but greenhouse gas ("GHG") emissions and/or impacts on climate change are not included. The effect of this project would be to authorize cement mining and manufacturing that has significant emissions of carbon dioxide, the leading GHG, for another 25 years. Therefore, California Environmental Quality Act requires the County to evaluate and mitigate the GHG emissions and climate change impacts from the project.

Climate Change Background

Emissions of GHG on the Earth's surface accumulate in the atmosphere: the increased atmospheric concentration of these same gases in turn adversely affects the climate.^{1/} The

1. (Intergovernmental Panel on Climate Change, Fourth Assessment Report (IPCC 4th) (2007), Working Group (WG) I, Frequently Asked Question 2.1, *How do Human Activities Contribute to Climate Change and How do They Compare with Natural Influences?*)

atmospheric concentration of carbon dioxide (CO₂), the leading GHG, is now 379 parts per million (ppm), higher than any time in the preceding 650,000 years.^{2/} According to some experts, an atmospheric concentration of CO₂ “exceeding 450 ppm is almost surely dangerous” because of the climate changes it will effect, “and the ceiling may be even lower.”^{3/}

Currently, atmospheric GHG concentrations are far from stable. “The recent rate of change is dramatic and unprecedented[.]”^{4/} Over just the last 17 years, atmospheric concentrations of CO₂ have risen 30 ppm, a rate of change that, in pre-industrial times, would have taken 1,000 years.^{5/} Experts are clear that if we continue our “business as usual” emissions trend, atmospheric concentrations of CO₂ will likely exceed 650 ppm by the end of the century.^{6/}

In short, our past and current GHG emissions have pushed us to a climatic “tipping point.” If we continue our business-as-usual emissions trajectory, dangerous climate change will become unavoidable. According to NASA’s James Hansen, proceeding at the emissions rate of the past decade will result in “disastrous effects, including increasingly rapid sea level rise, increased frequency of droughts and floods, and increased stress on wildlife and plants due to rapidly shifting climate zones.”^{7/} And, the experts tell us, we have less than a decade to take decisive action.^{8/}

The need to make substantial cuts in emissions drives the global targets embodied in the Kyoto Protocol and the State’s targets established by the Governor’s Executive Order S-3-05, and AB 32, the CA Global Warming Solution Act of 2006. In California, by these authorities,

http://ipcc-wg1.ucar.edu/wg1/Report/AR4WG1_Pub_FAQs.pdf.)

2. (IPCC 4th, WG I, Frequently Asked Question 7.1, *Are the Increases in Atmospheric Carbon Dioxide and Other Greenhouse Gases During the Industrial Era Caused by Human Activities?* http://ipcc-wg1.ucar.edu/wg1/Report/AR4WG1_Pub_FAQs.pdf.)

3. (http://www.nasa.gov/centers/goddard/news/topstory/2007/danger_point.html.)

4. (IPCC 4th, WG I, Frequently Asked Question 7.1, *Are the Increases in Atmospheric Carbon Dioxide and Other Greenhouse Gases During the Industrial Era Caused by Human Activities?* http://ipcc-wg1.ucar.edu/wg1/Report/AR4WG1_Pub_FAQs.pdf.)

5. (*Id.*)

6. (<http://www.epa.gov/climatechange/science/futureac.html>.)

7. (<http://www.giss.nasa.gov/research/news/20070530/>; see also *Hansen et al., Dangerous Human-Made Interference with Climate* (2007) 7 *Atmos. Chem. Phys.* 2287–2312 http://pubs.giss.nasa.gov/docs/2007/2007_Hansen_et_al_1.pdf.)

8. (*Id.*) For further discussion of dangerous climate change, see IPCC 4th, WG III, Ch. 1 at pp. 6-7 http://www.mnp.nl/ipcc/pages_media/FAR4docs/chapters/CH1_Introduction.pdf.

we are committed to reducing emissions to 1990 levels by 2020, and 80% below 1990 levels by 2050. To achieve the 2020 target, California must reduce its current emissions by 25%.^{9/}

CEQA Requirements

As the legislature recently recognized, global warming is an "effect on the environment" as defined by the California Environmental Quality Act ("CEQA"), and a project's contribution to global warming can be significant.^{10/} CEQA was enacted to ensure that public agencies do not approve projects unless they include feasible alternatives or mitigation measures that substantially reduce the significant environmental effects of the project.^{11/} CEQA requires that "[e]ach public agency shall mitigate or avoid the significant effects on the environment of projects that it carries out or approves whenever it is feasible to do so."^{12/} This requirement is extremely important and is recognized as "[t]he core of an EIR"^{13/} Therefore, the EIR for the Hanson project must evaluate mitigation measures and examine alternatives that would reduce the project's emissions of GHG that contribute to global warming.^{14/}

Project Impacts and Potential Mitigation Measures

The Hanson Quarry is one of 11 cement facilities in California. California produces approximately 11.4 million tons of cement per year, out of 101 tons produced in the entire United States. These 11 cement facilities use large amounts of energy, including 2.3 million tons of coal per year.^{15/} This accounts for most of the coal used in all industrial and commercial

9. (Office of the Governor, *Gov. Schwarzenegger Signs Landmark Legislation to Reduce Greenhouse Gas Emissions*, Press Release (Sept. 27, 2006) <http://gov.ca.gov/index.php?/press-release/4111/>.)

10. See Pub. Res. Code section 21083.05, subd. (a); see also Sen. Rules Com., Off. of Sen. Floor Analyses, Analysis of Sen. Bill No. 97 (2007-2008 Reg. Sess.) Aug. 22, 2007.

11. Public Resources Code § 21002.

12. Public Resources Code §§ 21002.1(b) and 21081; see also, *Mountain Lion Foundation v. Fish and Game Commission*, 16 Cal.4th 105, 134 (1997).

13. *Citizens of Goleta Valley v. Board of Supervisors of Santa Barbara County* (1990) 52 Cal.3d 553, 564-65.

14. Public Resources Code § 21002.1(a); Cal. Code Regs., tit. 14, § 15130, subd. (b)(5).

15. Draft Expanded List of Early Action Measures to Reduce GHG Emissions in CA Recommended For Board Consideration, Cal/EPA, Air Resources Board, October 2007, at C-27.

operations in California, which is approximately 2.6 million tons (2004 data).^{16/} Coal is a high-carbon intensity fuel, emitting over 210 pounds of CO₂ per million Btu compared to only 117 pounds of CO₂ per million Btu for natural gas. The Air Board estimates that the total CO₂ equivalent emissions from cement manufacturing in California are 10.8 million metric tons per year. (See fn. 15).

According to the Bay Area Air Quality Management District (“BAAQMD”), the Hanson Quarry emitted 1,115,075 metric tons CO₂ equivalent in 2002. Approximately 60% of this is attributed to direct emissions from the manufacturing process (the “calcination” process that transforms limestone into clinker), and about 40% is from burning fuel (primarily coal). A third, but smaller, source of GHG emissions from the facility is electricity use. Thus, it is clear that the project will result in significant future GHG emissions.

Increasing the energy efficiency of cement facilities is recognized as a potential way to reduce GHG emissions in California. It is one of the proposed “early actions” for climate change mitigation that the Air Board is evaluating pursuant to AB 32. (See fn. 15 at p.16). The strategy involves “reducing CO₂ emissions from fuel combustion, calcination, and electricity use by converting to a low-carbon fuel-based production, decreasing fuel consumption, and improving energy efficiency practices and technologies in cement production.” (Id.) The Air Board does not plan to consider this measure formally until the 4th quarter of 2010. (Id. at C-27). However, there are feasible opportunities to reduce energy use and carbon emissions from cement manufacturing that can be implemented now; therefore, this is an appropriate mitigation measure to evaluate in the EIR.

Using biofuels as a supplemental fuel for the cement kiln is a potential way to reduce GHG emissions. A BAAQMD report on large stationary sources lists biofuel combustion for cement manufacturing on a “prioritized short list of mitigation technologies” that provide a favorable reduction to cost relative ratio.^{17/} A cement facility in Redding (Shasta County) owned by Lehigh Southwest Cement Company (“Lehigh”) recently began using sawdust as a supplemental fuel.^{18/} This should significantly reduce the facility’s use of coal and therefore reduce its GHG emissions. (We are informed that the same company, Lehigh, recently purchased the Hanson Quarry). In addition, the BAAQMD indicates that the Hanson Quarry is evaluating the use of solid biofuels, such as nut shells, as a supplemental fuel. (See fn. 17, at p. 6-3). Other types of wood waste (from orchards or construction, for example) and sewage

16. Inventory of California GHG Emissions and Sinks: 1990 to 2004 (CEC, December 2006) and information provided by Webster Tasat, California Energy Commission.

17. See “Opportunities for Further Greenhouse Gas Emission Reductions for the BAAQMD Stationary Sources” Final Report (March 2007) prepared for the Bay Area Air Quality Management District, Table 4-2.

18. Shasta County Air Quality Management District issued an “Authority to Construct, Secondary/Supplemental Fuel System; Approval of Medium Density Fiberboard Sawdust as Auxiliary Fuel” on 5/16/06 and revised Permit to Operate (#85-PO-14) on 9/27/07.

sludge are other potential biofuels. A facility is under construction in Rialto, California to convert sewage sludge into fuel for cement kilns.^{19/} Increasing the use of natural gas as a fuel would also reduce carbon emissions. (See fn. 15 at C-28).

Other mitigation measures that could be evaluated include the feasibility of co-generation (which is currently used at one California cement plant); to identify and remedy any areas of heat loss from the kiln; to evaluate, maintain and repair the kiln seals; and to identify opportunities to reduce electricity use. The Cemex facility in Victorville, California completed an Energy Savings Assessment in May 2007 through a DOE program and identified feasible, cost-effective actions to reduce its electricity use of 5.2 million kWh/year by 1.9 million kWh/year.^{20/} An audit could be conducted of the Hanson facility prior to issuance of the draft EIR to identify any opportunities to reduce energy use and heat loss, and the identified actions could be evaluated in the EIR and adopted as mitigation measures if they are feasible. The EIR could also evaluate reducing the project's emissions of GHG (and criteria pollutants as well) from vehicle trips by using alternative fuel vehicles and/or vehicles with lower emitting engines and other measures.

Accordingly, it appears there may be several feasible mitigation measures that the County could evaluate and adopt in the EIR for the Hanson Quarry project. In addition, offsite mitigation may be an appropriate measure to address the facility's remaining climate change impacts. We urge the County, in this EIR and Reclamation Plan Amendment, to take the opportunity to show leadership in the state's efforts to avoid catastrophic climate change.

Thank you for your consideration of these comments. We would appreciate the opportunity to meet with you to discuss these issues, at your convenience.

Sincerely,

/Sandra Goldberg/

SANDRA GOLDBERG
Deputy Attorney General

For EDMUND G. BROWN JR.
Attorney General

cc: Supervisor Liz Kniss

19. See "EnerTech and HDR Begin Construction of the First Full-Scale SlurryCarb Facility in Rialto, CA (4/19/07) at <http://www.californiagreensolutions.com/cgi-bin/gt/tpl.h,content=343>

20. ESA-021-2 CEMEX Inc. - Victorville Facility, Final Public Report, available at: www.eere.energy.gov/industry/saveenergynow/partners/pdfs/esa-021-2.pdf